

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte JEAN-PIERRE DREANO  
and JEAN-PHILIPPE BOYER

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Appeal No. 95-2640  
Application 07/949,289<sup>1</sup>

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ON BRIEF

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Before THOMAS, KRASS, and TORCZON, Administrative Patent  
Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed September 22, 1992.

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Application No. 07/949,289

This is a decision on appeal from the final rejection of claims 12 through 23, all of the claims pending in the application.

The invention pertains to an electrostatic shutter tube. More particularly, a shutter electrode therein is made to conform to the electric field produced by a first electrode. The shutter electrode has a rim positioned in a location where one of the equipotential lines of the electric field is to be produced and in a shape which conforms to the predetermined shape of the line. The shutter electrode also has a minimal thickness at least at its edge. The shutter electrode shape and location is said to result in a shutter electrode which does not substantially disturb the equipotential lines of the electric field produced by the first electrode.

Independent claim 12 is reproduced as follows:

12. An electrostatic shutter tube for producing a representation of a photon image, said tube comprising:

- a. an electron source for emitting a flow of electrons in response to an incident photon image;
- b. a target on which an image may be inscribed by incident electrons;

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c. first electrode means disposed between the electron source and the target for producing an electric field, defined by a multiplicity of equipotential lines having predetermined shapes, for accelerating the flow of electrons toward the target and focusing said flow of electrons at said target;

d. shutter electrode means for facilitating interruption of the flow of electrons from the electron source to the target, said shutter electrode means having a rim with an edge defining an aperture for passing the flow of electrons, said rim being positioned in a location where one of said equipotential lines is to be produced, having a shape substantially conforming to the predetermined shape of said line, and having a minimal thickness at least at said edge, such that, during transmission of the flow of electrons through the aperture, the shutter electrode does not substantially disturb the equipotential lines of the electric field produced by the first electrode means.

The examiner relies on the following references:

Stoudenheimer et al. (Stoudenheimer)	3,474,275	Oct. 21, 1969
Santilli et al. (Santilli)	3,989,971	Nov. 2, 1976
Wang	4,814,599	Mar. 21, 1989

Claims 12 through 23 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Claims 12 through 16, 18 and 19 stand further rejected under 35 U.S.C. § 102(b) as anticipated by Stoudenheimer. Claims 17 and 20 through 23 stand further rejected under 35 U.S.C. § 103. As evidence of

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obviousness, the examiner cites Stoudenheimer and Santilli with regard to claim 17 and Stoudenheimer and Wang with regard to claims 20 through 23.

Reference is made to the briefs and answer for the respective positions of appellants and the examiner.

#### OPINION

Turning first to the rejection of claims 12 through 23 under 35 U.S.C. § 112, second paragraph, we will not sustain this rejection.

The examiner holds the claims to be indefinite because "it is unclear as to what amount of 'minimal thickness' is necessary" to achieve the results recited in independent claim 12. We find no indefiniteness here as the specification states, at page 3, lines 8-10:

Ideally, the shutter electrode should have a thickness which is substantially equal to zero. Since this is impossible in practice, it is given a minimal thickness (for example less than 0.2 mm) at the rim of the central aperture...

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Thus, reference to the specification makes it clear as to the meaning of "minimal thickness." That is, the thickness of the shutter electrode should be as small as possible within the confines of the practical. An exemplary thickness, less than

0.2 mm, is disclosed. Therefore, the "minimal thickness" is disclosed to be less than 0.2 mm and there is nothing indefinite about it. The examiner may be confusing breadth with

indefiniteness. Breadth is not to be equated with indefiniteness. In re Miller, 441 F.2d 689, 693; 169 USPQ 597, 600 (CCPA 1971).

We also note, with some curiosity, that claim 17 calls for a more specific thickness of the rim, i.e., "less than approximately 0.2 mm," yet the examiner saw fit to include this claim in the rejection under 35 U.S.C. § 112, second paragraph, as being indefinite. Clearly, there is nothing indefinite about this specific claim.

We now turn to the rejection based on prior art.

First, with regard to the rejection of claims 12 through 16, 18 and 19 under 35 U.S.C. § 102(b), we will not sustain

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this rejection because we find no indication in Stoudenheimer of the claimed shutter electrode means having a rim with the required location, thickness and shape. Further, Stoudenheimer mentions nothing whatsoever about equipotential lines so it is not understood how Stoudenheimer can disclose or even suggest the shape of the rim of a shutter electrode which conforms "to the predetermined shape of said line."

The examiner identifies the combination of elements 22 and 42 of Stoudenheimer as the claimed "first electrode means...for producing an electric field" and then identifies one of the elements of this combination, i.e., element 22, as also constituting the claimed "shutter electrode means." It is not clear how a single element 22 in Stoudenheimer can be considered to be part of both the first electrode means and the shutter electrode means. Moreover, even if element 22 could, somehow, be considered a "shutter electrode means," we find absolutely nothing in Stoudenheimer even remotely intimating that such a "shutter electrode means" has a

rim...positioned in a location where one of said equipotential lines [no mention of any equipotential lines in Stoudenheimer] is to be produced, having a shape substantially conforming to the predetermined shape of said line, and having a minimal thickness...such that...the shutter electrode does not substantially disturb

the equipotential lines of the electric field produced by the first electrode means.

The examiner contends [page 4-answer] that the rim "inherently and substantially conforms with one of the equipotential lines..." [emphasis ours]. However, in order for a thing to be inherent, it must be shown that the claimed property or function must necessarily occur. The examiner has given us no evidence that there is any "shutter electrode means," as claimed, in Stoudenheimer or that there is any rim associated therewith which would necessarily conform to an equipotential line having a predetermined shape. Not only is there no explicit identification in Stoudenheimer of any "shutter electrode means," but there is also no mention of, or apparent interest in, any equipotential lines, their shape or the shape of any rim associated with a shutter electrode means or that the shape of any such rim conforms to the shape of an equipotential line.

Accordingly, the examiner has fallen far short of establishing a prima facie case of anticipation of the claimed subject matter of independent claim 12. Therefore, claims 13

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through 16, 18 and 19, dependent from claim 12, also cannot be anticipated by Stoudenheimer.

With regard to the obviousness rejections of claims 17 and 20 through 23, the references to Santilli and Wang are relied upon for the teachings of a rim thickness of about 0.2 mm and for a target being a charge-transfer device, respectively. Without ruling on the specifics of these references vis á vis the claimed subject matter, clearly, the rejections rely on Stoudenheimer as the principal reference for a teaching of the shutter electrode means having the characteristics set forth in independent claim 12. Since we find, for the reasons supra, that Stoudenheimer is lacking in this respect and it is clear that neither Santilli nor Wang provide for this deficiency, we will not sustain the rejections of claims 17 and 20 through 23 under 35 U.S.C. § 103.

We have not sustained any of the rejections of the claims under 35 U.S.C. § 112, second paragraph, 35 U.S.C. § 102(b) or 35 U.S.C. § 103.

Accordingly, the examiner's decision is reversed.



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REVERSED

	James D. Thomas	)	
	Administrative Patent Judge	)	
		)	
		)	
		)	
	Errol A. Krass	)	BOARD OF
PATENT		)	
	Administrative Patent Judge	)	APPEALS AND
		)	INTERFERENCES
		)	
		)	
	Richard Torczon	)	
	Administrative Patent Judge	)	

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